

ANACONDA



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April 27, 1976

T. R. Beck
General Manager

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U. S. Geological Survey
P. O. Box 829
Carlsbad, NM 88220

**U. S. Geological Survey
Carlsbad, N. M.**

Attention Mr. R. S. Fulton, Area Mining Supervisor

Gentlemen:

We are herewith submitting additional information relating to The Anaconda Company proposed "Mining and Reclamation Plan For The P-15, P-17 Uranium Mine" as requested by Mr. Dale Jones in correspondence dated April 21, 1976.

The format of Mr. Jones' letter is indicated for reference with subsequent Anaconda Company response.

1. Would the P-17 shaft also be downcast, and how many CFM total would be required for the P-17 Mine? How many of the P-17 vent holes would be downcast and how many upcast?

Each ventilation shaft for the P-17 Mine will be capable of handling 40,000 CFM of ventilating air, although only 200,000 to 250,000 CFM will be required at maximum production. Not all of the ventilation shafts would necessarily be equipped with fans at any given time. This is particularly true during the later years of the mine life. As mining proceeds and the workings are advanced beyond the effective usefulness of the ventilation shafts near the hoisting shaft, they will be abandoned as others are drilled.

The upcast or downcast nature of each ventilation shaft will also be variable as the mining progresses, with the ventilation shafts at the extremities of the mine being upcast. As the mining proceeds beyond the usefulness of the extremity upcast shafts, new upcast ventilation shafts will be drilled and the former upcast ventilation shafts will be either reduced in capacity by using smaller fans or abandoned.

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2. How deep would the settling ponds at each mine be?

6 feet

3. Would the sewage lagoons at each mine conform to state standards, and would they be associated with any other sanitation facilities (e.g., aeration system with clarifier and chlorinator tanks)? According to state law, would it be permissible to bury the residual waste material in the lagoons at the end of mining operations?

The sewage lagoons for the P-15 and P-17 Mines will comply with state standards and will not be associated with other sanitation facilities. Contact has been made with New Mexico Environmental Improvement Agency personnel and the plans for the proposed sewage lagoons will be submitted to the EIA for approval. Also, according to State law it would be permissible to bury the residual waste material in the lagoons at the end of the mining operations.

4. Would there be any service roads to the settling ponds and sewage lagoons at the mines? If so, how much area would they occupy?

The existing roads will be utilized for access to the settling and sewage lagoons at the mines, consequently new roads will not be required.

5. How long (approximately) would the reclamation work at each mine take?

Approximately two months for each mine site.

6. Please provide a brief description of the geologic structures in the P-15 and P-17 areas (faults, bedding, anticlines, synclines, etc.).

There are no recognizable geological structures (folds) or faults in the proposed mining areas. Regional dip of all involved sediments (Jurassic and Cretaceous) is very shallow, on the order of two degrees toward the northwest. A small (to two feet thick) vertical diabase sill having a north-northwest trend has been mapped which may extend into the mine areas, but most of these areas are covered by colluvium (up to about 100 feet thick) which effectively hides most features. In general there is very little geological disturbance in the proposed mine areas.

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7. Please provide a brief description of the geologic hazards, if any, in the P-15 and P-17 areas (landslides, explosive gases, seismic risk, etc.).

To the best of my knowledge there are no potentially serious geological hazards in the proposed mine areas. The colluvium appears to be well stabilized with no evidence of any recent significant slippage.

8. Please provide a brief description of the other mineral and/or non-mineral resources in the mine areas (e.g., vanadium, coal, oil, gas).

There are no other known mineral or non-mineral resources, besides uranium, in the proposed mine areas.

9. Please supply a brief description of the P-15 and P-17 ore deposits including the following:

The P-15 and P-17 ore deposits are essentially the same as the associated Paguate and Jackpile Deposits. The ore occurs in the tabular lenses having irregular planar outlines and dimensions and they vary in thickness from just a few feet to about twenty feet. The ore lenses are occasionally stacked.

Details concerning the two proposed mine areas are as follows:

P-15:

- range in length from 3000 to 3600 feet
- range in width from 400 to 1400 feet
- range in thickness from 6 to 65 feet
- maximum thickness of 65 feet
- average thickness of approximately 15 feet
- range in depth from 470 to 650 feet
- separation between stacked ore bodies:

maximum	<u>38'</u>
minimum	<u>10'</u>
average	<u>20'</u> (approximate)

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9. Continued

P-17:

- range in length from 4000 to 5000 feet
- range in width from 200 to 1600 feet
- range in thickness from 6 to 35 feet
- maximum thickness of 35 feet
- average thickness of approximately 10 feet
- range in depth from 260 to 590 feet
- separation between stacked ore bodies:

maximum	33'
minimum	10'
average	20' (approximate)

10. Please provide a brief description of the soils in the mine areas.

See attachment.

11. What are the uses of the waters in the Paguate Reservoir and the unidentified reservoir outside of Laguna at the head of Rio San Jose (according to USGS 7.5 Minute Series Map, Laguna Quadrangle)? Do you have any information on the quality of the waters in these reservoirs and on the quality of water from any wells in or near the mine areas?

It is our understanding Mr. Forrest Lyford of the USGS Albuquerque Office has completed a water resource evaluation of the Laguna Reservation which addresses the use and quality of the reservoirs in question. Anaconda unfortunately does not have a copy of the study report and consequently must refer you to Mr. Lyford for the information.

In reference to the quality of existing wells in the vicinity of the proposed P-15, P-17 Mines; the wells in question are the P-10 Mine Well and the New Shop Well. In accordance with USGS approval of the Anaconda P-10 Mining Operation, chemical, bacterial and radiological analysis are conducted and reported quarterly to the USGS Carlsbad Office. See attachment.

U. S. Geological Survey
Attention Mr. R. S. Fulton

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We hope the supplemental information for the P-15 and P-17 mining projects contained herein will meet with your approval. If any additional information or clarification is required, please contact Anaconda at your earliest convenience.

Very truly yours,

T R Beck

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TRB:m

Enclosure